

LELAND TOWNSHIP NORTH

HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

LEELANAU COUNTY

T31N,R12W



HIGH RISK EROSION AREAS

THE NUMBER REPRESENTS, IN FEET, THE 60' 90 YEAR PROJECTED RECESSION DISTANCE.
105' THE NUMBER REPRESENTS, IN FEET, THE 6D YEAR PROJECTED RECESSION DISTANCE.



THESE AREAS ARE LEGALLY DEFINED BY THE SHORELANDS PROTECTION AND MANAGEMENT ACT. 1970 P.A. 245, AS AMENDED, AS BEING GREAT LAKES SHORELAND AREAS DOCUMENTED TO RECEDE. AN AVERAGE OF ONE FOOT OR MORE PER YEAR.

CRITICAL DUNE AREAS



BARRIER DUNES
BARRIER DUNE FORMATIONS DESIGNATED PURSUANT TO 1976 P.A. 222



AREAS NOT INCLUDED IN DESIGNATED BARRIER DUNE FORMATIONS THAT ARE COMPOSED PRIMARILY OF DUNE SAND AND EXHIBIT SEVERAL DUNE-LIKE



EXEMPLARY DUNE ASSOCIATED PLANT COMMUNITIES OUTSIDE DESIGNATED DUNE FORMATIONS. MICHIGAN NATURAL FEATURES INVENTORY REFERENCE CODE INDICATED.

SOURCE

STATE OF MICHIGAN ACT 245 RECESSION RATE MAPS & ATLAS OF CRITICAL DUNE AREAS

INFORMATION

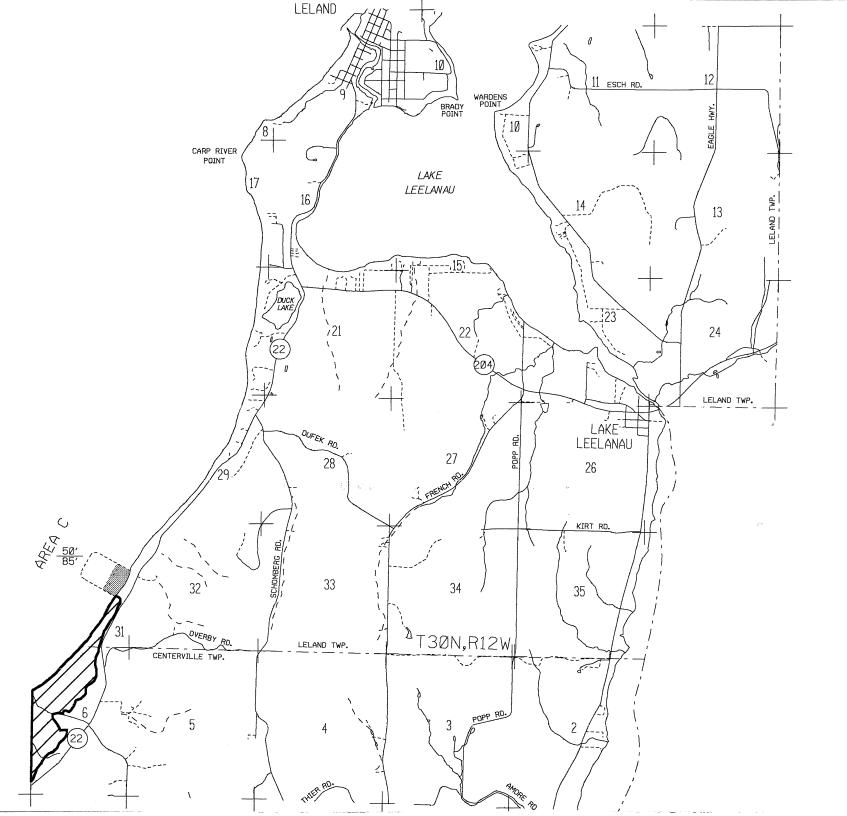
MICHIGAN DEPARTMENT OF NATURAL RESOURCES LAND AND WATER MANAGEMENT DIVISION LANSING, MI 489Ø9 (517) 373-195Ø



GREAT LAKES INFORMATION SYSTEM MICHIGAN DEPARTMENT OF NATURAL RESOURCES LAND AND WATER MANAGEMENT DIVISION

02-10-93



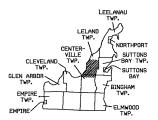


LELAND TOWNSHIP SOUTH

HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

LEELANAU COUNTY

T3ØN,R12W



HIGH RISK EROSION AREAS

THE NUMBER REPRESENTS, IN FEET, THE 60' 30 YEAR PROJECTED RECESSION DISTANCE.
105' THE NUMBER REPRESENTS, IN FEET, THE 60 YEAR PROJECTED RECESSION DISTANCE.



THESE AREAS ARE LEGALLY DEFINED BY THE SHORELANDS PROTECTION AND MANAGEMENT ACT, 1970 P.A. 245, AS AMENDED, AS BEING GREAT LAKES SHORELAND AREAS DOCUMENTED TO RECEDE AN AVERAGE OF DNE FODT OR MORE PER YEAR.

CRITICAL DUNE AREAS



BARRIER DUNES BARRIER DUNE FORMATIONS DESIGNATED PURSUANT TO 1976 P.A. 222



AREAS NOT INCLUDED IN DESIGNATED BARRIER DUNE FORMATIONS THAT ARE COMPOSED PRIMARILY OF DUNE SAND AND EXHIBIT SEVERAL DUNE-LIKE CHARACTERISTICS.



EXEMPLARY DUNE ASSOCIATED PLANT COMMUNITIES OUTSIDE DESIGNATED DUNE FORMATIONS, MICHIGAN NATURAL FEATURES INVENTORY REFERENCE CODE INDICATED.

SOURCE

STATE OF MICHIGAN ACT 245 RECESSION RATE MAPS & ATLAS OF CRITICAL DUNE AREAS

INFORMATION

MICHIGAN DEPARTMENT OF NATURAL RESOURCES LAND AND WATER MANAGEMENT DIVISION P.O. BOX 30028



02-11-93





Date of Designation: March 11, 1993

Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-113-001-40	7005 N Manitou Trail	A1	1.5	60	105
45-009-113-001-50	6999 N Manitou Trail	A1	1.5	60	105
45-009-113-001-60	N Manitou Trail	A1	1.5	60	105
45-009-113-001-70	N Manitou Trail	A1	1.5	60	105
45-009-124-002-00	N Manitou Trail	A1	1.5	60	105
45-009-124-001-00	6949 N Manitou Trail	A1	1.5	60	105
45-009-124-001-25	N Manitou Trail	A1	1.5	60	105
45-009-124-001-19	6905 N Manitou Trail	A1	1.5	60	105
45-009-124-001-15	6899 N Manitou Trail	A1	1.5	60	105
45-009-124-001-10	6795 N Manitou Trail	A1	1.5	60	105
45-009-124-001-30	6737 N Manitou Trail	A1	1.5	60	105
45-009-124-001-20	N Manitou Trail	A1	1.5	60	105
45-009-660-001-00	6743 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-003-00	6721 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-005-00	6705 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-007-10	6681 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-011-00	6663 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-013-00	6645 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-015-00	N Omigisi Beach Road	A1	1.5	60	105
45-009-660-017-00	6621 N Omigisi Beach Road	A1	1.5	60	105

HREA* - Some parcels may be in multiple HREAs due to their large size.

30 yr PRD* is the Projected Recession Distance (feet) landward from the Erosion Hazard Line for readily moveable structures including those structures 3,500 square feet or less and built on a basement, crawlspace or pilings. Additional restrictions may apply per Administrative Rules 281.21-22.

60 yr PRD* is the Projected Recession Distance (feet) landward from the Erosion Hazard Line for non-readily moveable structures such as large structures and septic systems.



Date of Designation: March 11, 1993

Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-660-019-00	6615 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-021-00	6593 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-023-00	6575 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-024-00	6553 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-025-00	6537 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-026-00	6525 N Omigisi Beach Road	A1	1.5	60	105
45-009-660-027-00	6511 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-009-00	6465 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-009-30	6427 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-009-40	6393 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-009-10	6335 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-009-20	6301 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-015-00	6285 N Omigisi Beach Road	A1	1.5	60	105
45-009-124-014-00	6263 N Birchwood Drive	A1	1.5	60	105
45-009-124-016-00	6257 N Birchwood Drive	A1	1.5	60	105
45-009-124-014-10	6251 N Birchwood Drive	A1	1.5	60	105
45-009-124-012-00	6249 N Birchwood Drive	A1	1.5	60	105
45-009-124-010-00	6225 N Birchwood Drive	A1	1.5	60	105
45-009-124-011-10	6203 N Birchwood Drive	A1	1.5	60	105
45-009-124-011-00	6199 N Birchwood Drive	A1	1.5	60	105

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Date of Designation: March 11, 1993

Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-560-011-00	6167 N Birchwood Drive	A1	1.5	60	105
45-009-560-009-00	6145 N Birchwood Drive	A1	1.5	60	105
45-009-560-008-00	6133 N Birchwood Drive	A1	1.5	60	105
45-009-560-007-00	6127 N Birchwood Drive	A1	1.5	60	105
45-009-560-006-00	6115 N Birchwood Drive	A1	1.5	60	105
45-009-560-005-10	N Birchwood Drive	A1	1.5	60	105
45-009-560-004-10	6087 N Birchwood Drive	A1	1.5	60	105
45-009-560-002-00	6061 N Birchwood Drive	A1	1.5	60	105
45-009-560-001-50	6055 N Birchwood Drive	A1	1.5	60	105
45-009-560-001-00	6045 N Birchwood Drive	A1	1.5	60	105
45-009-127-005-20	5439 E Sugarbush Lane	B1	1.7	65	115
45-009-127-003-00	E Sugarbush Lane	B1	1.7	65	115
45-009-127-005-00	5415 E Sugarbush Lane	B1	1.7	65	115
45-009-127-005-10	5411 E Sugarbush Lane	B1	1.7	65	115
45-009-127-029-01	5407 E Sugarbush Lane	B1	1.7	65	115
45-009-127-011-01	5379 E Sugarbush Lane	B1	1.7	65	115
45-009-127-010-00	5351 E Sugarbush Lane	B1	1.7	65	115
45-009-127-009-00	E Sugarbush Lane	B1	1.7	65	115
45-009-127-028-00	5325 E Sugarbush Lane	B1	1.7	65	115
45-009-127-027-00	5283 E Sugarbush Lane	B1	1.7	65	115

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Date of Designation: March 11, 1993

Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-127-026-00	E Sugarbush Lane	B1	1.7	65	115
45-009-127-025-00	5273 E Sugarbush Lane	B1	1.7	65	115
45-009-127-006-00	5211 E Sugarbush Lane	B1	1.7	65	115
45-009-127-012-00	5161 E Sugarbush Lane	B1	1.7	65	115
45-009-127-016-50	5149 E Sugarbush Lane	B1	1.7	65	115
45-009-127-018-00	5107 E Sugarbush Lane	B1	1.7	65	115
45-009-127-030-00	5093 E Sugarbush Lane	B1	1.7	65	115
45-009-127-013-00	E Sugarbush Lane	B1	1.7	65	115
45-009-127-020-00	5035 E Sugarbush Lane	B1	1.7	65	115
45-009-127-021-00	E Sugarbush Lane	B2	3.2	110	205
45-009-127-022-00	5023 E Sugarbush Lane	B2	3.2	110	205
45-009-127-023-00	5001 E Sugarbush Lane	B2	3.2	110	205
45-009-127-015-00	E Sugarbush Lane	B2	3.2	110	205
45-009-134-001-00	4991 N Manitou Trail	B2	3.2	110	205
45-009-134-024-55	5750 E Yellow Birch Lane	B2	3.2	110	205
45-009-134-024-10	4805 N Manitou Trail	B2	3.2	110	205
45-009-134-024-20	N Manitou Trail	B2	3.2	110	205
45-009-134-024-30	N Manitou Trail	B2	3.2	110	205
45-009-134-016-10	N High Bluffs Drive	B2	3.2	110	205
45-009-134-016-25	4293 N High Bluffs Drive	В3	1.8	70	125

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Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-134-016-20	4281 N High Bluffs Drive	В3	1.8	70	125
45-009-134-016-15	4275 N High Bluffs Drive	В3	1.8	70	125
45-009-134-017-25	N High Bluffs Drive	В3	1.8	70	125
45-009-134-017-00	4255 N High Bluffs Drive	В3	1.8	70	125
45-009-134-017-30	4241 N High Bluffs Drive	В3	1.8	70	125
45-009-134-016-00	N High Bluffs Drive	В3	1.8	70	125
45-009-134-016-01	N High Bluffs Drive	В3	1.8	70	125
45-009-134-016-02	N High Bluffs Drive	В3	1.8	70	125
45-009-134-016-03	N High Bluffs Drive	В3	1.8	70	125
45-009-134-021-00	4200 N High Bluffs Drive	В3	1.8	70	125
45-009-134-021-10	4201 N High Bluffs Drive	В3	1.8	70	125
45-009-134-022-00	4171 N High Bluffs Drive	В3	1.8	70	125
45-009-133-001-40	N High Bluffs Drive	В3	1.8	70	125
45-009-133-001-30	4161 N High Bluffs Drive	В3	1.8	70	125
45-009-133-001-00	4155 N High Bluffs Drive	В3	1.8	70	125
45-009-133-001-10	N Manitou Trail	В3	1.8	70	125
45-009-133-001-20	N Manitou Trail	В3	1.8	70	125
45-009-133-001-25	N Manitou Trail	В3	1.8	70	125
45-009-003-002-20	N Manitou Trail	В3	1.8	70	125
45-009-003-002-30	N Manitou Trail	В3	1.8	70	125

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Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-004-011-00	3433 N Manitou Trail	В3	1.8	70	125
45-009-570-019-00	4781 E Golfview Drive	В3	1.8	70	125
45-009-570-018-00	4773 E Golfview Drive	В3	1.8	70	125
45-009-570-017-00	4769 E Golfview Drive	В3	1.8	70	125
45-009-570-016-00	4763 E Golfview Drive	В3	1.8	70	125
45-009-570-015-00	4759 E Golfview Drive	В3	1.8	70	125
45-009-570-015-40	E Golfview Drive	В3	1.8	70	125
45-009-004-021-00	655 N Lake Street	В3	1.8	70	125
45-009-004-020-10	633 N Lake Street	В3	1.8	70	125
45-009-004-017-00	619 N Lake Street	B4	1.2	50	85
45-009-004-017-11	N Lake Street	B4	1.2	50	85
45-009-004-017-50	619 N Lake Street	B4	1.2	50	85
45-009-640-012-00	617 N Lake Street	B4	1.2	50	85
45-009-640-011-00	615 N Lake Street	B4	1.2	50	85
45-009-640-009-00	613 N Lake Street	B4	1.2	50	85
45-009-640-008-00	611 N Lake Street	B4	1.2	50	85
45-009-640-006-00	609 N Lake Street	B4	1.2	50	85
45-009-031-032-00	1282 S Manitou Trail	C1	1.2	50	85
45-009-031-034-00	1286 S Manitou Trail	C1	1.2	50	85
45-009-031-033-00	1288 S Manitou Trail	C1	1.2	50	85

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Parcel Identification No.	Address	HREA*	Rate (feet/year)	30 yr PRD*	60 yr PRD*
45-009-031-031-00	1312 S Manitou Trail	C1	1.2	50	85
45-009-031-022-00	1322 S Manitou Trail	C1	1.2	50	85
45-009-031-028-00	1340 S Manitou Trail	C1	1.2	50	85
45-009-031-020-00	1362 S Manitou Trail	C1	1.2	50	85
45-009-031-027-00	1366 S Manitou Trail	C1	1.2	50	85
45-009-031-026-00	S Manitou Trail	C1	1.2	50	85
45-009-031-025-00	1372 S Manitou Trail	C1	1.2	50	85
45-009-031-024-00	1378 S Manitou Trail	C1	1.2	50	85

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